

**State of Iowa - Return on Investment Program / IT Project Evaluation****SECTION 1: PROPOSAL**

Tracking Number (For Project Office Use)

Project Name: ICON Mercury Date: 26 September 2000Agency Point of Contact for Project: John R. BaldwinAgency Point of Contact Phone Number / E-mail: [john.baldwin@doc.state.ia.us](mailto:john.baldwin@doc.state.ia.us)Executive Sponsor (Agency Director or Designee) Signature: W. L. Kautzky

Is this project necessary for compliance with a Federal standard, initiative, or statute? (If "Yes," cite specific requirement, attach copy of requirement, and explain in Proposal Summary) ☐ Yes ☒ No

Is this project required by State statute? (If "Yes," explain in Proposal Summary) ☒ Yes ☐ No

Does this project meet a health, safety or security requirement? (If "Yes," explain in Proposal Summary) ☒ Yes ☐ No

Is this project necessary for compliance with an enterprise technology standard? (If "Yes," explain in Proposal Summary) ☒ Yes ☐ No

Does this project contribute to meeting a strategic goal of government? (If "Yes," explain in Proposal Summary) ☒ Yes ☐ No

Is this a "research and development" project? (If "Yes," explain in Proposal Summary) ☒ Yes ☐ No

**PROPOSAL SUMMARY:**

In written detail, explain why the project is being undertaken and the results that are expected. This includes, but is not limited to, the following:

1. A pre-project (before implementation) and a post-project (after implementation) description of the system or process that will be impacted.

**Pre-project:** The ICON-Mercy system replaces, over the next 2-3 years, the Adult Corrections Data System (ACDS) mainframe data base with a web based application that dramatically impacts the correctional officer, warden, medical staff, dietary, central office, judges, public safety officials, and a host of related agencies. The ACDS system does not provide the end users with any useful data, nor does ACDS provide decision-makers, Governor, Legislature, judges, and executive staff with information to make crucial public safety decisions. Basically, public safety agencies, judges, and policy makers do not know what works and what doesn't for over 15,000 convicted felons.

**Post-project:** ICON will allow public safety agencies, judges, and policy makers to know what works and what does not work with Iowa's rapidly expanding prison population.

2. A summary of the extent to which the project provides tangible and intangible benefits to either Iowa citizens or to State government. Included would be such items as qualifying for additional matching funds, improving the quality of life, reducing the government hassle factor, providing enhanced services, improving work processes, complying with enterprise technology standards, meeting a strategic goal, avoiding the loss of matching funds, avoiding program penalties/sanctions or interest charges, avoiding risks to health/security/safety, complying with federal or state laws, etc.

The ICON-Mercury system provides massive tangible and intangible benefits to Iowa citizens and government. A partial list of benefits follows.

- Provides for immediate information on all convicted felons in Iowa.
- Allows front line institutional staff to have access to relevant information about the inmate they are dealing with.
- Provides medical information to all medical, dental, and nursing staff.
- Provides pharmacy formulary and drug interaction system to greatly reduce costs and negative medical reactions.
- Makes the counting of inmates easier.
- Determining which offender programs keep offenders from recidivating.
- Provides for assessing the offenders needs with targeted diversion programs.
- Tracks the offender through the various assigned programs. Allows the Department to provide services at the appropriate level.
- Shares data with other agencies to avoid duplication of effort.
- Provides for public safety through knowledge of the offender's actions.
- Provides public information for such offense as sexual assault.
- Complies with Governor's and legislative language that DOC develop ICON to be used by public safety agencies.
- Greatly improves work process by moving from a paper and pencil system to a totally automated one.
- Enhances the State of Iowa Code requirement for a criminal sanction continuum.
- Allows for accurate computer projection of inmate offender population.

3. A summary that identifies the project stakeholders and how they are impacted by the project.

The primary stakeholders are the Governor and Director of Corrections who will have accurate data with which to implement or redirect programs and staff to achieve the overall goal of safe communities. This is crucial so that communities are safe and that corrections resource can be invested wisely without waste.

- An equally important stakeholder is the offenders that are under our supervision. These offenders deserve a chance at success in life and not endless opportunities to see the inside of a jail or prison.
- The staff of all public safety agencies need to know accurate and up to date information on the person they are dealing with.
- The general public needs to live in safe communities.
- Legislatures and policy makers need to know what works, what doesn't and how to make improvements.

Is this Project required by State statute? Yes

- The ICON project is authorized by the Governor and legislature in H.F. 2552. Governor Vilsack has supported the ICON project with both funding and intent language the last two years. The entire ICON system will be comprised of ICON banking (completed); ICON-Lite (completion date

8/1/00); ICON-Mercury, the institution part of ICON starts 11/1/00 with scope definition; and ICON-medical starts scope definition on 02/01/01.

Does this project meet a health, safety or security requirement: Yes

- The ICON-Mercury project provides greatly enhanced security features for correction officers, medical staff, counselors, dietary, maintenance, judges, police officers, sheriffs and the general public.

Is the project necessary for compliance with an enterprise technology standard?

- The ICON-Mercury project meets all enterprise technology standards that were in place at the time the program was written.

Does this project contribute to meeting a strategic goal of government?

- The ICON-Mercury project is a major component to the safe communities' goal of Governor Vilsack. The ICON system will fulfill the requirements set out by the Governor in our appropriation bill referenced above.

Is this a "research and development" project?

- The ICON-Mercury and ICON Mercury projects will be able to become a research and development tool. Professors from the University of Northern Iowa provided valuable assistance in creating this component of the ICON database. Please note research and development are not the primary function of the ICON system.

## **SECTION 2: PROJECT PLAN**

Individual project plans will vary depending upon the size and complexity of the project. A project plan includes the following information:

### **1. Agency Information**

**Project Executive Sponsor Responsibilities:** Identify, in Section I, the executive who is the sponsor of the project. The sponsor must have the authority to ensure that adequate resources are available for the entire project, that there is commitment and support for the project, and that the organization will achieve successful project implementation.

See Section 1.

**Organization Skills:** Identify the skills that are necessary for successful project implementation. Identify which of these skills are available within the agency and the source(s) and acquisition plan for the skills that are lacking.

IT Project Management	Skills available within agency or from A-T-G
ROI expertise	Skills available within agency
Application Software	Skills available from A-T-G
Operating Software	Skills available from A-T-G
Interfaces	Skills available from agencies or A-T-G
User Participation	Skills available within agency
Compliance Standards	Skills available within agency
Training	Skills available within agency

### **2. Project Information**

**Mission, Goals, Objectives:** The project plan should clearly demonstrate that the project has developed from an idea to a detailed plan of action. The project plan must link the project to an agency's mission, goals, and objectives and define project objectives and how they will be reached. The project plan should include the following.

The Department spent \$150,000 for an outside consultant to provide an overall mission for their project. The document is available for your review and will be provided if requested however the document is rather lengthy and is in paper form only.

**Response to A. Expectations, B. Measures; C. Environment follows.** Listed below is our statement of beliefs that answer items A through C as well as provide overall direction for this project. These beliefs were supported by each of the 8 District Directors and the 180 front line staff that worked on the ICON-Lite project.

#### **We believe that the system will improve upon staff efficiency.**

We believe movement to one unified system statewide will virtually eliminate all duplicate data entry, which currently takes place. Today, information is entered in the ACDS system, only to be re-entered on local databases throughout nine prisons. Once ICON is in place, information will only be entered into the database once and then updated as necessary.

We believe ICON will create a reduction in the need for paper documents, as all information in the database will be readily available to workers in both the community-based corrections and institutions.

The system is designed so data entry is accomplished in an efficient manner. Selecting choices from drop-down boxes through “point and click” will improve the consistency of the data entered, and will also allow many line staff to enter their own data as opposed to the current procedure whereby they write data down on a piece of paper and hand it to clerical staff for entry into the system.

ICON is being developed with the intent to have interagency connectivity. This will completely eliminate some data entry into the system such as courts and public safety.

The ICON system will decrease the time we spend with word processing. Currently, we duplicate information in the database in Word documents. The system will be able to automatically populate some fields on forms such as pre-sentence investigation reports, discharge reports, violation reports etc.

**ICON will greatly enhance communication within Corrections as well as between corrections and other agencies. This will allow for the real time exchange of information, which is something that has not previously been possible. The same is true as extended to the general public.**

Corrections (CBC and Institutions) will now have one offender database in which to store information. This information will be available to all staff and will be recorded in a consistent format understood by all users.

Plans are underway to connect Corrections, the Department of Public Safety and the Court system so that pertinent information is shared in a timely fashion.

The new technology will allow better inter and inter-agency communication resulting in more complete and consistent offender information from throughout the criminal justice system in Iowa.

The ICON technology will allow the transfer of public information to the Iowa Access Project resulting in the public having access to the data they have a right to view.

**ICON will launch the Department into new technology moving from an outdated mainframe system to a Web browser based system.**

Using a Web browser based system will result in the decrease in the cost of hardware. There will be no need for dedicated database servers at each location resulting in a saving statewide.

This technology requires fewer IT staff for initial deployment and ongoing technical support than would be needed with a distributed database.

The system utilizes the Iowa Communications Network as the “backbone” of the system, which maximizes our use of the ICN as a state resource and is consistent with other agency architecture.

Movement to this technology places the Department in a position where we are poised to take advantage of emerging technology.

**The ICON system will enhance our ability to measure correctional outcomes.**

Functioning with one database will give us the ability to centrally generate statistical reports which will be more efficient, accurate and timely than the current method of sending out surveys, completing file reviews, etc.

Through our ability to feed information to the data warehouse and through enhanced reporting capabilities, we can significantly improve the Criminal and Juvenile Justice Planning Agency’s ability to analyze and evaluate criminal justice information statewide.

Through the improved report capabilities of ICON, Corrections will be able to more readily and accurately respond to legislative inquiries.

The Department will be able to better determine the existence and location of resource gaps by capturing assessment, need and treatment intervention information tied to offenders.

The system will be able to provide data, which can be analyzed to determine program effectiveness with respect to recidivism.

ICON will be able to provide an accurate "picture" of population profiles with respect to offense, sentence, risk, needs, violating behavior, time served, etc.

**The system will allow us to be more effective in working with the offender population.**

It will strengthen our ability to track assessments, needs and treatment interventions for individual offenders.

It will improve the ability to staff to see what has occurred historically with the offender to assist in future planning. Currently, staff have to piece together a great deal of information. With one database, we will be able to control the quality of information we have with respect to our own agency.

The system will improve upon offender accountability by accurately capturing and relaying factual information throughout the criminal justice system.

- D. **Project Management and Risk Mitigation:** A description of how you plan to manage the project budget, project scope, vendors, contracts and business process change (if applicable). Describe how you plan to mitigate project risk.

- Scope document and formalized testing process;
- Insure defined projects leads and responsibilities;
- Equipment is tested prior to deployment.

- E. **Security / Data Integrity / Data Accuracy / Information Privacy:** A description of the security requirements of the project? How will these requirements be integrated into the project and tested. What measures will be taken to insure data integrity, data accuracy and information privacy?

The ICON-Mercury data base system has been fully secluded from the rest of ICN. Our system is completely password controlled with staff being able to only access those screens that pertain directly to their job functions. Microsoft COM + Services insure data integrity and accuracy by enforcing that business rules are met before committing information to the database. Every transaction is flagged for user name and time. After three unsuccessful log in attempts to the front end the user is locked out. Users are not granted access to the data, instead they are granted execute permission to the COM + modules. These preprogrammed modules enforce the business rules regarding data access. This has the effect of not allowing alternate tools to access the database.

### 3. Current Technology Environment (Describe the following):

#### A. Software (Client Side / Server Side / Midrange / Mainframe)

- Application software
  - Client side: Internet explorer version 5
  - Server side: Microsoft SQL version 7
- Operating system software
  - Client side: Windows 95, 98, 2000 or NT
  - Servers side: Windows 2000 advanced server
  - Mid-Range: Windows 2000 advanced server
- Interfaces to other systems: Identify important or major interfaces to internal and external systems
  - ICBC interface: Text file transfer/FTP
  - Court interface: Oracle
  - Public Safety: Oracle
  - Data Warehouse: Terra Data

#### B. Hardware (Client Side / Server Side / Mid-range / Mainframe):

- Platform, operating system, storage and physical environmental requirements.

Server Side:

- Platform: Compaq and equal file servers
- Operating System: Windows 2000
- Storage and physical and environmental requirements: 216 gigabytes of storage; normal server requirements.

Client Side:

- Platform: Any PC compatible work station
- Operating System: Windows 95, 98, 2000 or NT
- Storage and Physical
- Environment: No additional requirements

- Connectivity and Bandwidth: If applicable, describe logical and physical connectivity.

Connectivity and Bandwidth: Connectivity is ICN based using T-1 lines to institutions. PVC's are connected to A-T-G from all remote locations.

- Interfaces to other systems: Identify important or major interfaces to internal and external systems.

ACDS, Court/Judicial, Public Safety and data warehouse are all handled by ICN connection.

### 4. Proposed Environment (Describe the following):

#### A. Software (Client Side / Server side / Mid-range / Mainframe) – See Number 3 above.

- Application software.
- Operating system software.
- Interfaces to other systems: Identify important or major interfaces to internal and external systems.
- General parameters if specific parameters are unknown or to be determined.

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B. Hardware (Client Side / Server Side / Mid-range / Mainframe) – See Number 3 above.

- Platform, operating system, storage and physical environmental requirements.
- Connectivity and Bandwidth: If applicable, describe logical and physical connectivity.
- Interfaces to other systems: Identify important or major interfaces to internal and external systems.
- General parameters if specific parameters are unknown or to be determined.

**Data Elements:** If the project creates a new database the project plan should include the specific software involved and a general description of the data elements.

- Specific Software: SQL
- General description of data elements: 300 SQL data tables containing thousands of specific data elements related to the criminal justice system. Currently the system must support 242,497 offenders.

**Project Schedule:** A schedule that includes: time lines, resources, tasks, checkpoints, deliverables and responsible parties.

Project schedule - 11-01-00, Definitions and Scope.



## SECTION 3: Return On Investment (ROI) Financial Analysis

### Project Budget:

Provide the estimated project cost by expense category.

Personnel .....	\$	_____
Software .....	\$	_____
Hardware.....	\$	_____
Training .....	\$	403,676
Facilities .....	\$	_____
Professional Services.....	\$	_____
Supplies .....	\$	_____
Other (Specify) line charges...	\$	17,500
Total .....	\$	421,176

### Project Funding:

Provide the estimated project cost by funding source.

State Funds .....	\$	421,176	100	% of total cost
Federal Funds.....	\$	_____	_____	% of total cost
Local Gov. Funds .....	\$	_____	_____	% of total cost
Private Funds .....	\$	_____	_____	% of total cost
Other Funds (Specify).....	\$	_____	_____	% of total cost
Total Cost: .....	\$	_____	_____	% of total cost

Provide the estimated project cost by fiscal year.

How much of the cost would be incurred by your agency from normal operating budgets (staff, equipment, etc.)? .....\$ -0- \_\_\_\_\_%

How much of the cost would be paid by requested State IT project funds ..... \$421,176 \_\_\_\_\_%

Provide the estimated project cost by fiscal year: FY 02 \$ 421,176  
 FY \_\_\_\_\_ \$ \_\_\_\_\_  
 FY \_\_\_\_\_ \$ \_\_\_\_\_

ICON Phase III (Mercury) and IV (Medical) will become live within the next two years at a cost of \$750,000 each year and ongoing maintenance staff and support of \$250,000. The one time hardware costs will be in the range of \$1,000,000. Line costs will be in the range of \$200,000 per year.

### ROI Financial Worksheet Directions (Attach Written Detail as Requested):

**Annual Pre-Project Cost** -- Quantify, in written detail, all actual State government direct and indirect costs (personnel, support, equipment, etc.) associated with the activity, system or process prior to project implementation. This section should be completed only if State government costs are expected to be reduced as a result of project implementation.

**Annual Post-Project Cost** -- Quantify, in written detail, all estimated State government direct and indirect costs associated with activity, system or process after project implementation. This section should be completed only if State government costs are expected to be reduced as a result of project implementation.

**State Government Benefit** -- Subtract the total “Annual Post-Project Cost” from the total “Annual Pre-Project Cost.” This section should be completed only if State government costs are expected to be reduced as a result of project implementation.

**Citizen Benefit** -- Quantify, in written detail, the estimated annual value of the project to Iowa citizens. This includes the “hard cost” value of avoiding expenses (hidden taxes) related to conducting business with State government. These expenses may be of a personal or business nature. They could be related to transportation, the time expended on or waiting for the manual processing of governmental paperwork such as licenses or applications, taking time off work, mailing, or other similar expenses.

**Opportunity Value/Risk or Loss Avoidance Benefit** -- Quantify, in written detail, the estimated annual benefit to Iowa citizens or to State government. This could include such items as qualifying for additional matching funds, avoiding the loss of matching funds, avoiding program penalties/sanctions or interest charges, avoiding risks to health/security/safety, avoiding the consequences of not complying with State or federal laws, providing enhanced services, avoiding the consequences of not complying with enterprise technology standards, etc.

**Total Annual Project Benefit** -- Add the values of all annual benefit categories.

**Total Annual Project Cost** -- Quantify, in written detail, the estimated annual new cost necessary to implement and maintain the project including consulting fees, equipment retirement, ongoing expenses (i.e. labor, etc.), other technology (hardware, software and development), and any other specifically identifiable project related expense. In general, to calculate the annual hardware cost, divide the hardware and associated costs by three (3), the useful life. In general, to calculate the annual software cost, divide the software and associated costs by four (4), the useful life. This may require assigning consulting fees to hardware cost or to software cost. A different useful life may be used if it can be documented.

**Benefit / Cost Ratio** – Divide the “Total Annual Project Benefit” by the “Total Annual Project Cost.” If the resulting figure is greater than one (1.00), then the annual project benefits exceed the annual project cost. If the resulting figure is less than one (1.00), then the annual project benefits are less than the annual project cost.

**ROI** -- Subtract the “Total Annual Project Cost” from the “Total Annual Project Benefit” and divide by the amount of the requested State IT project funds.

**Benefits Not Cost Related or Quantifiable** -- List the project benefits and articulate, in written detail, why they (IT innovation, unique system application, utilization of new technology, hidden taxes, improving the quality of life, reducing the government hassle factor, meeting a strategic goal, etc.) are not cost related or quantifiable. Rate the importance of these benefits on a “1 – 10” basis, with “10” being of highest importance. Check the “Benefits Not Cost Related or Quantifiable” box in the applicable row.

## ROI Financial Worksheet

### Annual Pre-Project Cost - How You Perform The Function(s) Now

FTE Cost (salary plus benefits):	
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	
<b>A. Total Annual Pre-Project Cost:</b>	<b>N/A New Program</b>

### Annual Post-Project Cost – How You Propose to Perform the Function(s)

FTE Cost:	
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	
<b>B. Total Annual Post-Project Cost:</b>	<b>N/A New Program</b>
<b>State Government Benefit ( = A-B ):</b>	

### Annual Benefit Summary

State Government Benefit:	
Citizen Benefit (including quantifiable “hidden taxes”):	
Opportunity Value and Risk/Loss Avoidance Benefit:	<b>\$2,300,000 of future tax cost</b>
<b>C. Total Annual Project Benefit:</b>	<b>\$2,300,000 of future tax cost</b>
<b>D. Total Annual Project Cost:</b>	<b>\$421,176 F ÷ 3 years = \$140,392</b>
<b>Benefit / Cost Ratio (C / D):</b>	<b>_16.4_</b>
<b>ROI (C – D / Requested State IT Project Funds):</b>	<b>_513_%</b>

☐ **Benefits Not Cost Related or Quantifiable (including non-quantifiable “hidden taxes”)**

**EXHIBIT I**  
**COST AVOIDANCE DISCUSSION**

**Background**

The initial component of the ICON system, the ICON Banking Program, will be used as the baseline for cost avoidance calculation. The ICON Banking System resulted in a 30 minute per day “savings” of staff time for each employee in the District and Institution business office. This resulted in business office overtime being virtually eliminated and staff being able to process more accurately offender financial information.

**Benefits To Criminal Justice System of ICON**

- Eliminate need for duplicate/triplicate data entry.
- Provides accurate information to line staff, managers, judges, police.
- Provides outcome data for criminal justice system
- Improves public safety for Iowa citizens.

**Calculation**

Approximately 1,000 employees will have 30 minutes extra per day to deal with offenders. This time is now spent doing paperwork which will be computerized with ICON. This equates to 500 hours per day of face-to-face contact with offenders with a value of over \$2,300,000 per year. This will improve the State’s efforts to improve public safety.